

## **TECHNIQUES FOR MAPPING TO A SHARED LOOKUP TABLE MASK**

### **ABSTRACT OF THE DISCLOSURE**

**[0086]** Techniques for combining lookup tables on a programmable integrated circuit are provided. Lookup tables (LUTs) in a design for a programmable circuit can be combined into one mask if they implement the same function. Any two LUTs in a design can be compared to determine if they implement the same function by rearranging the input signals of one of the LUTs with respect to the input terminals of that LUT. Pairs of LUTs can be rejected if they do not share at least N common input signals, or if they have more than M unique input signals.

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